

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
21 August 2003 (21.08.2003)

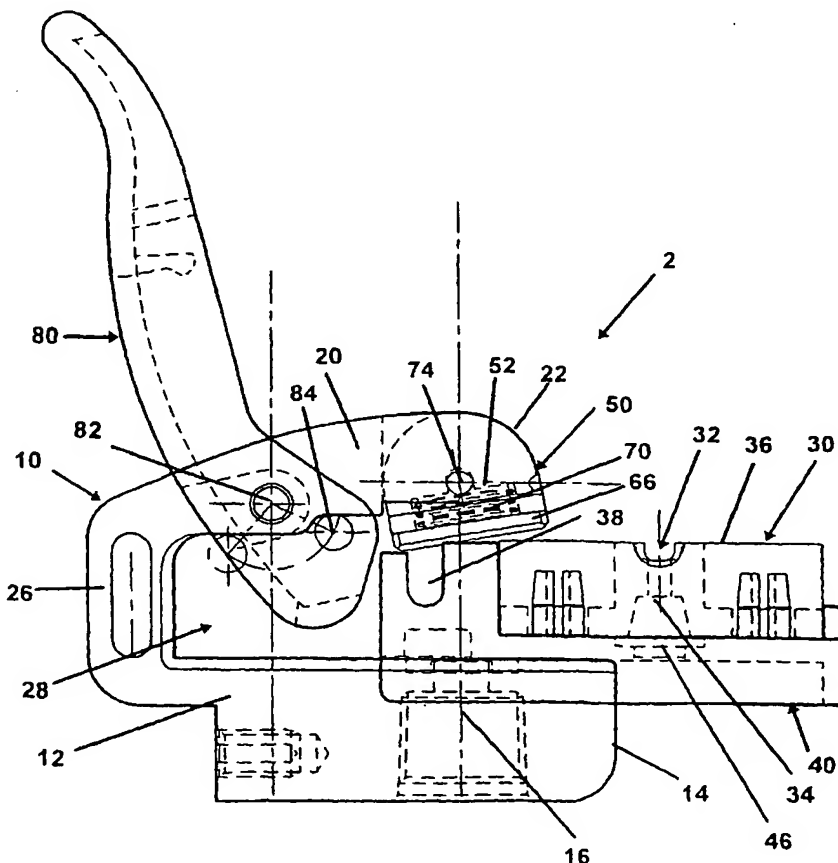
PCT

(10) International Publication Number
WO 03/069036 A1

- (51) International Patent Classification⁷: D02G 1/16, D02J 1/08
- (21) International Application Number: PCT/US03/04259
- (22) International Filing Date: 11 February 2003 (11.02.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/356,693 13 February 2002 (13.02.2002) US
- (71) Applicant (for all designated States except US): INTERNATIONAL MACHINERY SALES, INC. [US/US]; P.O. Box 11276, 8065-J North Point Blvd., Winston-Salem, NC 27106-3218 (US).
- (72) Inventor; and
(75) Inventor/Applicant (for US only): SEAR, Nicolas, C. [US/US]; 1240 Idlewild Health Dr., Winston-Salem, NC 27106 (US).
- (74) Agent: ROBERT, Pitts, W.; PO Box 11483, Winston-Salem, NC 27116-1483 (US).
- (81) Designated States (national): JP, US.
- (84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR).
- Declarations under Rule 4.17:
— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations JP, European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR)

[Continued on next page]

(54) Title: INTERLACING TEXTILE SLIDE JET



(57) Abstract: A textile interlacing slide jet (2), (102) includes a jet body (10), a jet carriage (40, 140) on which a ceramic jet nozzle insert (30, 130) is mounted, and a spring housing (52) that includes a stack of compression spring washers (70, 170), such as Belleville washers. The spring housing (52) is rotatable, relative to an upper arm (20) of the jet body (10), to a tilted position to permit insertion and removal of the jet carriage (40, 140) and the jet nozzle insert (30, 130) without the use of special tools. The compression spring washers (70, 170) are located in the spring housing (52) directly above a ceramic plate (66, 166) located on the bottom of the spring housing. These springs (70, 170) urge the ceramic plate or bottom layer into engagement of the top surface of the jet nozzle insert (30, 130) so that the ceramic plate (66, 166) can close a yarn channel when the jet carriage (40, 140) and the jet nozzle insert (30, 130) have been moved to a closed position by rotation of an actuating lever (80, 180).